



Parameters:
Total Suspended Solids



A ViSolid sensor with UltraClean technology remains clean after a 30-day deployment.

Watch the UltraClean technology cleaning in action:

bit.ly/IQclean



YSI IQ SensorNet ViSolid®H

Total Suspended Solids sensor for hazardous locations (Class 1, Div. 2) according to NFPA 820

The ViSolid® is an optical based TSS (total suspended solids) sensor for the IQ SensorNet process monitoring and control system. In order to get a sufficient degree of nitrification, a sufficient sludge age must be maintained. Sludge age is affected by the amount of sludge wasted and the MLSS (mixed liquor suspended solids) concentration in the aeration tank. Monitoring MLSS and returned activated sludge with the ViSolid allows you to calculate sludge waste and Sludge Retention Time to help you optimize your treatment process and maintain consistent, high quality effluent.

• Factory Calibration

The ViSolid sensor is factory calibrated for two different types of sludge - primary and activated. The factory-calibration and stable optics of the sensor provide accurate measurements without the need for a user-calibration. The sensor can be adjusted to the process and a 1-point calibration can be performed if needed due to the specific application.

• UltraClean® Ultrasonic Cleaning

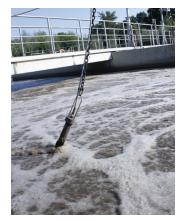
The ViSolid's unique ultrasonic cleaning prevents biofouling which significantly reduces maintenance requirements. UltraClean is integrated into the sensor and never requires a seal or wiper replacement.

• Measurement Principle

Utilizes two measurement methods depending on TSS concentrations - either backscatter for higher concentrations or scattered light for lower concentrations.

• 2-year Warranty





YSI.com/ViSolid

IQ SensorNet ViSolid TSS Sensor General Specifications **Calibration Capability** Factory calibrated; user calibration and matrix adjustment available: 1-8 points **Typical Applications** Matrix Type 1: Primary effluent, aeration basin and return activated sludge Matrix Type 2: Primary sludge, digested sludge Electrical data Voltage range: 14 VDC to 24 VDC via the MIQ/BB2 barrier box Consumption: 1.5 W Protective Class: III UltraClean ultrasonic cleaning system built directly into the sensors, no moving parts or seals to replace **Cleaning System** Signal Output Warranty 2 years 4 to 12 pH range **Temperature** 32 to 140 °F (0 to 60 °C) Operating Storage 23 to 149 °F (-5 to 65 °C) Detects optic contamination, failure of cleaning system or measurement error for early malfunction detection SensCheck **Maximum Pressure** 10 bars (145 psi); with sensor connection cable (SACIQ (SW)) Conformance/ Certifications UL 61010-1, CAN/CSA 22.2 #61010.1 Electrical Hazardous Location Ratings Conforms to: ANSI/ISA-12.12.01, CAN/CSA C22.2 #213 for the following location rating: Class 1 Division 2, Group DT6, Class 1 Zone 2, Group IIAT6 (must be used with IQ SensorNet cable and MIQ/BB2 barrier box) **Process Variation Coefficient** According to DIN 38402 part 51; <2% for matrix type 1, <4% for matrix type 2 Sensor Material: Housing - V4A stainless steel 1.4571; Sapphire window; Connector - POM and ETFE Rating: IP68; waterproof Dimensions: 365 L x 40 D mm (14.37 Lx 1.57 D in) (length x diameter) Weight: 990 q (2.18 lbs)

IQ SensorNet ViSolid TSS Sensor Technical Specifications

0 to 400 mg/L; 0 to 4000 mg/L; 0 to 25,000 mg/L; 0 to 40,000 mg/L TSS Range Concentration

> 0.0003 to 100% (practical limit: 4%) % Solids

0.1 mg/L to 1 mg/L, 0.001%, 0.01% or 0.1% TSS Resolution Auto-Ranging

IQ SensorNet ViSolid TSS Sensor Ordering Information (order terminals, modules, cables, sensors and mounting separately)

ViSolid 700 IQ H (#207 012Y) Digital Total Suspended Solids (TSS) sensor with UltraClean cleaning for the IQ SensorNet system ideal for hazardous locations MIQ/ BB2 (#207 002Y) Barrier Box for connecting ViSolid 700 IQ H to an IQ SensorNet system - Class 1 Div 2, Group D T6, Class 1 Zone 2, Group IIAT6

The MIQ/BB2 Barrier Box (YSI part number 207 002Y) must be used for connection. Refer to the following documents for proper installation:

- Control drawing, YSI document no. 28124 (see MIQ/BB2 operating manual)
- MIQ/BB2 operating manual
- All applicable electrical code regulations

Visit YSI.com/IQ for additional information on the entire IQ SensorNet system.

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